MULTIMEDIA-AIDED VERB TENSE TEACHING SYSTEM AND METHOD

BACKGROUND OF THE INVENTION

Field of the Invention

The invention relates to an application of storage media and, in particular, to a verb tense
5   teaching system that is combined with and run by multimedia computer technologies and the
corresponding methods.

Related Art

The most difficult aspect of learning a foreign language is its grammar rules. Grammar
rules are abstract combinations of statements extracted from innumerable examples. They
10   usually have neither fixed rules nor definite right-and-wrong formulations. Thus, one cannot
use normal logic concepts to determine grammatical errors. Learners often ask questions
such as why a particular sentence cannot be expressed in some other way. The answer is
usually because of grammar rules. Each language has its own specific grammar rules.

Taking the most commonly studied language, English, as an example, verb tenses are the
15   most difficult part. Especially for Chinese speakers, the difference in language systems
increases the difficulty in learning English. Chinese speakers are not used to different tenses
due to time differences. However, this is part of English grammar rules.

Conventional learning methods mostly use books or some abstract explanations in words.
Learners are provided with descriptions of various tenses and when to use a particular tense
20   and sentence pattern. This learning style is quite boring and cannot achieve its intended goals.
Although some TV programs or teaching videos provide richer pictures or actions, they still
cannot provide interactive learning simply because of their own limitations.

SUMMARY OF THE INVENTION

In light of the foregoing, the invention provides a verb tense teaching system using multimedia and its method. It offers users a bi-directional interactive verb tense teaching system. The system can play multimedia verb tense data for users as time changes require

5   changes in sentence structure.

The disclosed multimedia-aided verb tense teaching system and method includes a language knowledge database, a time unit and a processing unit. The language knowledge database stores tense-related multimedia data, including a grammar rule database for storing verb tense data and tense code data, an animation database for storing corresponding

10   animation data and animation codes, and an animation correspondence table that relates grammar rules and animation data. The time unit manages the correspondence between verb tense data of the language knowledge database and time. The processing unit receives a command given by a user to the time unit. According to the processing result by the time unit, the processing unit reads and plays the corresponding language data and multimedia data

15   from the language knowledge database. Multimedia data for different verb tenses generated according to different times are provided to users so they can learn verb tenses interactively.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will become more fully understood from the detailed description given hereinbelow. However, the following description is for purposes of illustration only, and

20   thus is not limitative of the invention, wherein:

FIG. 1 is a schematic functional block diagram of the disclosed multimedia-aided verb tense teaching system;

FIG. 2 is a schematic view of the language knowledge database of the system in FIG. 1;

FIG. 3 is a schematic view of the grammar rule database of the system in FIG. 1;

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FIG. 4 is a schematic view of the animation database of the system in FIG. 1;

FIG. 5 is a schematic view showing steps in the disclosed multimedia-aided verb tense teaching method;

FIG. 6 is a list of basic verb tenses in a preferred embodiment of the multimedia-aided verb tense teaching system and its method;

FIG. 7 shows verb tense rule descriptions and succeeding animation relations of the embodiment in FIG. 6; and

FIGS. 8A through 8F are demonstrative screens of the multimedia-aided verb tense teaching system and method.

DETAILED DESCRIPTION OF THE INVENTION

As shown in FIG. 1, the disclosed multimedia-aided verb tense teaching system 100 includes a system processing unit 110, a time unit 120 and a language knowledge database 200. It provides users 11 and 12 an interactive environment for learning verb tenses. As shown in the drawing, user 11 connects to the system 100 via the Internet, while user 12 connects to the system 100 directly.

The language knowledge database 200 stores verb tense related multimedia data, including a grammar rule database 230, an animation database 210, and an animation correspondence table 220. The grammar rule database 230 stores verb tense data and tense code data. The animation database 210 stores corresponding animation data and animation codes. The animation correspondence table 220 relates grammar rules with corresponding animation data.

The users 11 and 12 generate a command by adjusting the time. The command is processed by the time unit 120 and the system processing unit 110. Multimedia data corresponding to the required verb tense are read out from the language knowledge database

200 and played. The multimedia data include animations with texts, sounds, and pictures.

With reference to FIG. 2, the grammar rule database 230 has a verb tense code list 231, storing codes that correspond to tense data recording tense example sentences and descriptions. The animation database 210 also has an animation code list 211, storing codes

5   that correspond to animation data for all verb tenses. The animation correspondence table 220 stores the relations between the two sets of codes, i.e. the correspondence between the codes for the animation data for all verb tenses and the codes for verb tense data recording tense example sentences and descriptions.

As shown in FIG. 3, the grammar rule database 230 includes a verb tense code list 231, a

10   tense rule description database 232 and a tense database 233. The tense database 233 stores example sentences of all tenses, including simple present tense data 2331, simple future tense data 2332, future progressive tense data 2333, present progressive tense data 2334, present perfect tense data 2335, simple past tense data 2336, and so on. The tense rule description database 232 stores descriptions for all verb tenses, providing users another way to

15   understand tense rules in addition to multimedia data. As described before, the tense code list 231 connects associated multimedia data.

The animation database 210 includes an animation code list 211 and a verb tense animation database 212. As shown in FIG. 4, the verb tense animation database 212 stores multimedia data corresponding to all verb tenses, such as simple present tense animation data

20   2121, simple future tense animation data 2122, future progressive tense animation data 2123, present progressive tense animation data 2124, present perfect tense animation data 2125, simple past tense animation data 2126, and so on. The animation code list 211 gives codes of animation data for all verb tenses.

With reference to FIG. 5, the disclosed multimedia-aided verb tense teaching method

25   first establishes animation data, verb tense data, a time unit 120, and the relations between them in step 401. Step 402 receives a command entered by a user, i.e. the change command

given by the user on the time unit 120. The time unit 120 can be a clock or a calendar that users can adjust to change the verb tense in the multimedia data. Step 403 reads the change of the time unit 120 in response to the command. Step 404 obtains animation data and verb tense data corresponding to the tense after the time change. Step 405 plays the animation and

5   verb tense data. Step 406 determines whether all data has been played. If they are not finished, then the data are read and played. Otherwise, step 407 determines whether the data should be repeated. If so, then the data are played again.

To make the contents of the invention more evident, an embodiment is given below for explanation. As shown in FIG. 6, each piece of verb tense data has corresponding example

10   sentences and animation codes. Each verb tense also has its description and a succeeding relation (see FIG. 7). Actual animations are shown in FIGS. 8A through 8F, which play multimedia data for different verb tenses. Each picture has a clock for the user to adjust to provide animations and example sentences for different verb tenses.

Effects of the Invention

15   The invention discloses a multimedia-aided verb tense teaching system and method that includes a language knowledge database, a time unit and a processing unit. The language knowledge database stores verb tense-related multimedia data. The time unit stores the correspondence between verb tense data of the language knowledge database and time. The processing unit receives a command given by a user to the time unit. According to the

20   processing result by the time unit, the processing unit reads and plays the corresponding language data and multimedia data from the language knowledge database. The user can adjust the time and multimedia data for different verb tenses are generated for users to learn the tenses interactively.

The invention being thus described, it will be obvious that the same may be varied in

25   many ways. Such variations are not to be regarded as a departure from the spirit and scope of the invention, and all such modifications as would be obvious to one skilled in the art are

intended to be included within the scope of the following claims.